



public involvement in coal leasing activities

Aug. 9-11, 1977

Ashland

Forsyth

Billings



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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
222 North 32nd Street
P.O. Box 30157
Billings, Montana 59107

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C.2

September 19, 1977

To Persons Involved in BLM's Southeastern Montana Coal Planning:

The Bureau of Land Management (BLM) held a series of important public meetings in southeastern Montana in August, 1977. These meetings, part of an ongoing public involvement process, focused on federal coal leasing proposals. The objectives were to bring involved persons and groups up-to-date on BLM activities and, through small group workshops, document the factors (criteria) that the participants themselves would use in deciding between a number of different possible leasing tracts.

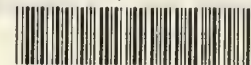
The meetings, held in Ashland on August 9, Forsyth on August 10, and Billings on August 11, were well attended. Seventy-five persons signed the participant list at Ashland, while 16 persons attended the Forsyth meeting. The Billings meeting drew 52 persons. It appears that the many diverse interests involved in the potential leasing of federal coal in southeastern Montana were well represented at the meetings.

This brochure describes the results of these meetings. Information is included on how BLM planned the sessions. The voting on each item generated by the 18 work groups at the three meetings and the analysis of the criteria identified by the participants is presented. Most importantly, the application of the results is also discussed. All participants at the sessions are listed and written comments that have been received by BLM are reproduced.

Persons at the Ashland meeting did not receive a copy of an important map which shows existing federally leased coal in their information packages. We are therefore enclosing a copy of this map, which was

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distributed at the Forsyth and Billings meetings, with this brochure to those persons who attended the Ashland meeting.

BLM employees who were involved in the meetings were gratified by the number of citizens who attended. The work groups proved to be an excellent way to meet with involved persons and have personal, yet structured, discussions on the issues.

For them, for BLM people in Miles City and Billings who did not make the sessions, and for myself, I wish to personally thank you for taking the time to get involved and helping us face the issues that coal development proposals have brought to this part of the country. We hope this brochure helps you understand the meetings and how we used your contributions.

If you have additional questions, please contact either the Miles City District Office or Montana State Office and we will do our best to answer them. Again, thanks for your participation.

A handwritten signature in black ink, reading "Edmund Daidling". The signature is written in a cursive style with a large, sweeping initial "E" and a long, horizontal flourish at the end.

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Cover Photo: Patrick Dawson, Billings Gazette

**background
on the meetings**

Locations

In order to insure that involved and interested persons had adequate opportunities to attend the meetings with minimal travel time and distance, three meetings were planned in Ashland, Forsyth, and Billings.

Announcements

Two methods were used to notify the public of the meetings. Using mailing lists from both the Montana State Office and the Miles City District Office, a letter was distributed to about 400 persons, organizations, and firms that have been participating in BLM's southeastern Montana energy minerals planning efforts.



Dear Interested Citizen:

The Bureau of Land Management land use planning activities in southeastern Montana are of major interest to area residents, particularly when planning recommendations address federal coal leasing proposals.

Recognizing this interest and concern, we have scheduled a series of meetings in Ashland, Forsyth, and Billings to bring you and others up to date on our activities, as well as to answer your questions and hear your views. The activities to be discussed are concerned with portions of Big Horn, Rosebud, Custer, and Powder River Counties. These four counties are included in BLM's Decker-Birney, South Rosebud, Coalwood, and Box Elder planning units. This same general area will be covered by the Northern Powder River environmental statement (EIS) being prepared jointly by U.S. Geological Survey, with lead responsibility, the BLM, and the state of Montana.

Last June industry was given the opportunity to "nominate" areas they would like to see offered for coal leasing. Under this same program, the general public was given an opportunity to identify "areas of public concern," areas where leasing should not take place.

As a result of this Call for Industry Nominations and Areas of Public Concern, the four-county area referred to earlier received 87 nominations from 25 nominators. The 87 tracts total about 400,000 acres. Also within this area, three tracts consisting of about 17,000 acres were nominated as Areas of Public Concern by three nominators.

Federal regulations provide for public meetings on these nominations prior to action on tract selection, the next step in the program. We would like to hear your suggestions and comments concerning factors which you feel should be considered in selecting or rejecting tracts for possible coal leasing, and how BLM should treat these nominations in light of existing land use plans (Management Framework Plans). This process will be referred to at the upcoming meetings as "MFP recycling."

Your comments on these key issues will assist us in making leasing/no leasing recommendations to the Secretary of Interior. Information generated will also be made available to USGS and the State of Montana for use in preparing the Powder River Environmental Statement.

In order to assure a meaningful and informative meeting, we ask that the following guidelines be observed: (1) Comments related to the industry nominations process must be in writing and sent to BLM no later than 30 days after the date of the meeting, (2) Comments must be limited to the four-county geographic area included in the Northern Powder River Environmental Statement, (3) Debate on the merits of renewed federal coal leasing will not give us the information we need from you, the public, and will only reduce the amount of time available to discuss other issues.

The meetings in Ashland, Forsyth, and Billings will be conducted in a different manner from other public meetings held in southeastern Montana. Our role will be limited to presenting background information.

Those attending the meetings will be divided into work groups to formulate recommendations. This small group approach will result in the participation of everyone present, regardless of their experience, background, and familiarity with the issues involved.

Public involvement is an essential ingredient in BLM's land use planning process. The issues to be discussed at the upcoming meetings and the recommendations that ultimately will be arrived at are of importance to everyone in southeastern Montana. We sincerely hope that you will be able to attend one of the meetings in your community.

Sincerely yours,

George Neuberg
District Manager

Miles City District Office
P.O. Box 940
Miles City, Montana 59301

August 3, 1977

Dear Interested Citizen:

The public meetings on coal lease nomination proposals in the Northern Powder River area have been scheduled as follows:

Ashland - Public School Gymnasium at 7:30 p.m.,
Tuesday, August 9.

Forsyth - Rosebud County Library at 7:30 p.m.,
Wednesday, August 10.

Billings - The Carter Room of the Northern Hotel
at 7:30 p.m., Thursday, August 11

Your attendance and participation are encouraged.

Sincerely yours,

Robert Teegarden

Acting District Manager

In addition to the letter, notices were sent to newspapers and radio and television stations throughout southeastern Montana. This announcement was aired the week prior to the meetings:

BLM SCHEDULES MEETING ON COAL LEASING PROCESS

BILLINGS--The Miles City District of the Bureau of Land Management has scheduled three public meetings, one in Ashland and one in Forsyth to discuss coal leasing activities in portions of Big Horn, Rosebud, Custer, and Powder River Counties. The third meeting on the same topic is scheduled to be held in Billings.

The Ashland meeting will be held on Tuesday, August 9, at 7:30 p.m. at the Ashland School gymnasium. The Forsyth meeting is scheduled for 7:30 p.m. the following evening, August 10, at the Rosebud County Library. The meeting in Billings will be held at 7:30 p.m., August 11, at the Carter Room of the Northern Hotel.

These meetings are being held consistent with federal regulations on the coal nominations process. Last January industry and the public were given the opportunity to nominate areas they wanted to see offered for coal leasing. Under provisions of the same program, the general public was given opportunity to identify "areas of public concern" where leasing would not take place. As a result of the coal for



photo by Patrick Henson, Billings Gazette

industry nominations and areas of public concern, this four county area received 87 nominations for leasing from 25 nominators. The 87 tracts total approximately 400,000 acres. In the same area, three tracts consisting of approximately 17,000 acres were nominated as areas of public concern by three nominators.

These meetings are being held prior to BLM action on tract selection on nominations. The public is encouraged to make comments or suggestions on factors which should be considered in selecting or rejecting tracts for possible coal leasing. The Bureau is also interested in public comment on how these nominations should be treated in light of existing land use planning (Management Framework Plans).

News Release, continued

Comments generated by these meetings will assist the Bureau in making leasing/no leasing recommendations to the Secretary of the Interior.

Further information concerning the meeting topic and format can be obtained from the Public Affairs Office, BLM Montana State Office, Granite Tower, PO Box 30157, Billings, Montana 59107 or from BLM's Miles City District Office, PO Box 940, Miles City, Montana 59301.

The Workshop Problem

Since the meetings were to be heavily dependent on the workshops, considerable attention (in planning the meetings) was given to preparing the workshop approach and the question to be addressed. This involved pre-testing a series of questions, using Montana State Office personnel. After each of these pre-tests, Miles City and Montana State Office persons responsible for the meetings met to discuss the results.

This resulted in the following wording of the question for use in the three meetings:

"You are the decisionmaker considering twenty-three (23) proposed leasing tracts. If you have to select the best tracts, list the two factors that you would consider in deciding which tracts should be mined or not mined."



Meeting Structure

As persons entered the meetings, they were asked to sign lists of participants and give their addresses. Each person was also given a package of extensive background material on BLM's past and present coal planning activities to keep and review.

The meetings were opened with presentations by BLM personnel on the various planning processes (land use planning work, the Energy Minerals Activity Recommendation System, and coordination between the United States Geological Survey and BLM in identifying tracts) that have been undertaken in southeastern Montana. Maps and narratives covering the 23 initial coal lease area proposals were distributed and discussed.

After the presentations were finished and a brief coffee break was taken, participants were asked to join small workgroups to discuss criteria that they thought should be used in selecting between the tracts.

The workgroup process involved the silent generation of criteria on an individual basis, round-robin listing of criteria on to a flip chart, group discussion of the criteria generated by members of the group, and, finally voting on the criteria. Each person was asked to select the five "best" ideas from the group list and then rank these in order of importance. "Five" represented the most important of the five criteria selected

from the group pool and "one" represented the least important of those chosen from the group's list.

A six-person group in Ashland was unable to prioritize the ideas. Their cache of 90 points was divided among the 14 items they generated and each item received 6.4 points.

work group voting results

This section displays the results of the workshop for each work group.

Each group is identified by meeting location (Ashland, Forsyth, Billings) and by a group number.

These tables are duplications of the flip chart sheets generated by the groups. The first series of numbers following the suggestion identifies the individual votes. The last number is the total points given that item by members of the group through voting.

ashland

Group 1

1. Opinion of residents and owner in particular tract should be in favor of coal leasing	1 2	3
2. Compare economics of mining tracts	5 2 2 2 5	16
4. Surface owner's consent "for" and "against"	3 4 5 5 2	19
5. Affect of mining on present land use and potential of restoration for that use		
6. If the condition of the land for agriculture can be improved through mining and reclamation, it should be given "A" priority	3 4 5 1 1 5	19
7. Tracts with highest yield (tons per acre) should be leased	2 3	5
8. Availability and type of transportation	1 3 1 3	8
9. Condition of land prior to mining compared to condition after mining	2	2
10. Landowner's reclamation objective and feasibility of meeting that objective	5 1 3 4	13
11. Effect of mining on hydrology	4 1 4 4 3	16

Group 2

1. Impacts on local population (undue disruption)	3 4 2 4 5	18
2. Availability of reclamation of land	4 1 5 1 2	13
3. Least ground water disturbance	5 2 2 4 1 3	17
4. Views of surface land owner take precedence over mineral owner	4 3 5 1	13
5. Impacts on land	4	4
6. Ease of mining - econ.	1	1
7. Disturbance to ecosystem	5 5 5 3 3	21
a. soils		
b. air		
c. ground water/surface water		
d. wildlife		
and the ability to restore these to the conditions that existed before mining		
8. Dust from mining operation		
9. Impacts on wildlife	1	1
10. Impacts on river ecosystem and surface water	3 3 2	8
11. Impacts on land adjacent to mine	2	2

ASHLAND - Group 2 (continued)

12. Impacts on BLM and state grazing permittees	1	1
13. Impacts of flood water in small drainages	2	2
14. Availability of water rights for mining and increasing populations	4	4

Group 3

1. Transportation facilities available (railroads)	2	2
2. Concentrate on areas where there will be no ground water disturbance	2 1 4 4	11
3. Concentrate on least productive agricultural land	3	3
4. <u>Establish</u> need for further federal coal leasing	3 1 4 1	14
5. No mining on irrigated or irrigatable lands	2 3	5
6. Surface owner consent prior to considering leasing	5 2 5 1	13

7. Least off-site effects on quality and quantity of water and surrounding land and land-owners	4 4 3 2 5	18
8. Social and economic impact on local population	4	4
9. Consider LAU (Logical agricultural units) within leasing areas	1 1	2
10. Full public disclosure of end use of coal must be made prior to leasing recommendations	5 3 3 5 2	18



ASHLAND - Group 4

1. Should be adjacent to (joining a common section line) an operating mine	5	5
2. Determine the ratio of deep minable coal to strip minable coal	4	4
3. Coal should be mined	5	5
4. Above average aesthetic value should not be mined	5	5
5. The need for more coal lease avoid existing and potential	5 5 5	15
6. Agriculturally productive land (existing and potential) and valley floor location	4 2 2 2	10
7. Limit wildlife impact		
8. If there is historical or archaeological value, it should not be mined		
9. The net energy produceable from the tracts	3	3
10. Impact of mining on recreation	1	1
11. Impact of mining on surface, lakes, streambeds and aquifers	3	3

12. Public opinion in areas to be mined	5 3	8
13. Require export only	4 1 1	6
14. Reclaimable to near level contour	5	5
15. Avoid national forest land		
16. Presence of existing export transportation next to tract	2 4 3	9
17. Slurry pipeline preferred particularly in remote areas.	5 1	6

Group 5

1. Highest percent of federal surface ownership	3	3
2. Feasibility of mining the coal economically, socially, geographically	3 1 4	8
3. Closeness to communities	5	5
4. Human concerns	4 3	7
5. Leasing scheduled to minimize impacts to local communities	2	2
6. How total land will be disturbed by all the associated activities		

ASHLAND - Group 5 (continued)

7. Net energy output	4 1	5
8. Incorporation of federal coal and non-federal coal in a land use plan	5	5
9. Coal quality	3	3
10. How will leasing/mining affect adjacent landowners' operations	3	3
11. Availability of water for development	2 2	4
12. The effect of mining on water quality		
13. What will be the effect of mining this tract in terms of the survival of the human race	5 1 2 3 4 5	20
14. What is the need, ultimate end use for the coal	4 4	8
15. Can demand be satisfied from expanding existing mines in the region and outside the region	5 2	7
16. Reclamation feasibility	1 2	3
17. Existing food production capacity or future production capacity	1 5	6

18. Population impacts (water, air) 1 1

Group 6*

1. Establish need	5 5	10
2. Directive to lease	1 3	4
3. Acreage (is more needed)	1	1
4. Relationship with private and deeded land		
5. Effect of mining on water on tract and adjacent area	4 2	6
6. Econ (tax) and econ consideration on total adjacent area of tract with primary consideration on surface water of said tract	3	3
7. Ground water quantity and quality	3 1	4
8. Relationship to existing leases		
9. Expand on or adjoining existing leases first	2 2 4	8
10. Terrain and vegetation		

*This group was unanimously opposed to large scale or accelerated federal coal leasing as proposed in the activity plan.

ASHLAND - Group 6 (continued)

11. Coal quality (tons/acre, Btu, ash waste, etc.)

12. Impact of transportation network on local people

13. Final determination of end use of coal mined (where and how) 5 4 9

Group 7*

1. Socio-economic impact (school and community)

2. Ability to return the land to production (highest economic use)

3. Ground and surface water. Determine the existing situation first and lease where least impact will occur to ground and surface water.

4. Existing leases should be mined before any new leases

5. Determine the need for more fuel coal before offering any new leases

*This group decided that they were unable/unwilling to prioritize the criteria that emerged from the group discussion.



Photo by Patrick H. son, Billings Gazette

ASHLAND - Group 7 (continued)

6. Consider the people living in the lease area.
7. Wildlife and environmental consideration (air, etc.)
8. Will of the people that own the land
9. Consider expanding existing mines rather than opening new ones in completely different areas (long ways from rail, etc.)
10. Consider the effect on land and water
11. Determination of what the "surface right" is
12. Determination of critical areas that should not be mined first
13. Consideration of the existing natural resources
14. Ability to return the land to its former agricultural productivity.

Group 8

1. There shouldn't be any more federal coal leased 4 5 1 10
2. How will the watershed be affected 3 3 6
3. Social, economic, and cultural effects, and the ability of the community to deal with those effects 4 4 4 5 1 18
4. Most coal and quality for area mined 1 4 5
5. If the country needs the coal, go get it 5 5 5 15
6. Minimum disruption to land, environment, and minimum water use 2 2 3 4 11
7. Offsite damages (railroads, transmission lines, whatever) 5 2 3 10
8. Damage done to underground water 1 1 2
9. Present use of land 3 3
10. Always consider agriculture before industrial development 3 2 2 7

ASHLAND - Group 10

1. Logical site specific mine location (Unit)	5 4	9	8. No leasing until currently leased coal has been developed	1	1
2. Economic consideration given priority from surface owners and local community points of view	1 3 5 1	10	9. Federal coal should be leased where sufficient non-federal coal can be combined to form logical mining unit	4 2 4 2	12
3. Ecological considerations should be given significant weight; i.e., wildlife, hydrology, agriculture (grazing), recreation, landforms	3 5	8	10. Coal should be leased where surface and subsurface reclamation potential is high	2	2
4. EPA compliance	1 1 2 5	9	11. Lease areas where reclamation can increase the present productivity of the land on a long term basis	2 4 3	9
5. Degree of offsite impact should be weighed. Areas where impacts are severe should be precluded from mine development	5	5	12. Federal coal should be leased to accommodate existing state coal conservation legislation		
6. Transportation should exist or where proposed transport is feasible	3	3	13. If land under coal lease has high production potential, it should be reclaimed to high potential	3	3
7. Consideration should be given national need and areas subject to mining should consider development time frames	1 5 2 4	12	14. Federal coal should be leased where land use can be improved by coal development	3	3
			15. High priority for leasing should be given areas which are not ground water recharge areas	4	4

ASHLAND - Group 11 and 12

1. Emphasize leasing based on subsurface water restoration	4 4 4 4 4 4 5	29
2. Mining should minimize socio-economic impacts to local communities	3 5 3 3	14
3. Development priority based on most economical ELUs	5 1 4 5	15
4. Reclaim topography to maximize farming potential	2 1 5	8
5. Provide more time for public input in future nominations and gather input from those not able to participate in present nominations	1 2 1 2	6
6. Do not confine new mining development to existing mine areas	2 1 3 4	10
7. Do not confine new mining development to existing mine areas	4 2 3 4	13
8. Federal coal should be leased where sufficient fed coal can be combined to form logical mining units	5 5	10
9. Base coal leasing on availability of surface owner's consent	5 5 2 2 1 5	20

10. Emphasize coal leasing in areas which can be most easily reclaimed	1 1	2
11. Landowners have right to determine how land will be reclaimed and have more input into mining reclamation plan	3 2 3 5 1 3 3 3 2 2 1	28

forsyth

Group 1

1. Economic attractiveness of a particular tract	3	3
2. Least leasing damage to worthwhile conflicting interests economically or aesthetically	1 2 3	6
3. Long term economic and social impact	4 5 3	12
4. Location within a logical mining unit	5 5	10
5. No leasing until reclamation processes are developed that are successful	1 5	6
6. Rancher's economic unit	5 3 4 2	14
7. Ground water	3 2 2 1	8
8. Existing leases should be mined		
9. Return to earlier reclamation methods (economic benefit to landowner)	2 4 1	7
10. Leases to complete existing mining blocks because of transportation and other reasons	4 4	8
13. Archaeology sites	1	1
14. Wildlife habitat		

Group 2

1. Mining around a federal section, making it uneconomical to mine	3 4 3	10
2. The need, the market	4 5 2	11
3. Total recoverable reserves per acre stripping ratio/quality	2	2
5. Which tract would cause the least amount of conflicts with existing ranching/farming operations (existing land use)	2	2
6. Surface owner consent	5 1	6
7. Hydrology, ground and surface. As it relates to adjoining lands (aquifers, damming, pollution)	5 1 4 4	14
8. Economic benefits to the state, taxes, jobs, in the long term	5	5
9. Permanent/temporary off-site damage people problems		
10. Is the federal government in competition in offering their leases with private landowners, or existing operations	1 1 3	5

FORSYTH - Group 2 (continued)

11. What affect the mine has on adjacent ranching operations. People related problems. Perm/temp 2 3 5

12. What is the feeling of the immediate area residents in the affected area 3 1 4

13. Potential air pollution affects on the grass

14. Permanent reclamation potential 3 5 2 10

15. Ability of a community to absorb the impacts of increased population (local taxes) 4 3 3 10

16. Are we sacrificing an existing business for a new business. Perm/temp



billings

Group 1 and 2

1. Minimum disturbance to social/ economic regime (status quo)	3 5 3	10
2. Productive land from non- productive (after mining)	3 5	8
3. Necessity for leasing coal (existing leases (state and private market conditions)	5 4 3 2 1 2 1 5	23
4. Sufficient economic coal reserves to support a commercial mining operation	1 5 5	11
5. Feasibility potential to transportation sources	1 2 4 4	11
6. Conflict between surface and subsurface ownership	4	4
7. EPA compliance coal	3 1	4
8. Present land use vs. coal development - establish priority (productivity)	1 4	5
9. Lease impact on hydrologic environment	5 3 3	11
10. Tracts where all seams can be mined - lease coal wasted	4	4
11. Overburden/coal thickness/ ratios	4	4

12. Proven reclamation capability
(complying with Montana laws)

13. Encourage utilization of
federal coal with the develop-
ment of non-federal coal

2 1 2 11
4 2

14. Consider state of Montana
selective denial (sec. 9
reclamation)

15. Encourage a competitive
ownership of federal coal

2 5 7

16. Encourage leasing near
existing mines

15b. New areas that are away
from existing coal mines

Group 3 and 4

1. Industry choice (economics)

2 5 5 12

2. Landowner consent

2 5 5 12

3. Hydrology (ground and
surface both)

4 4 3 11

4. Physical characteristics of
the land in question

5. Quantity and quality of
coal/overburden, thickness, etc.

4 3 7

6. Distance from existing
transportation

1 1 2

BILLINGS - Group 3 and 4 (continued)

7. Position relative to operating mines	5 4	9
8. Proximity to markets	1	1
9. Most coal with least surface disturbance	3 5 2	10
10. Effect of mining on existing ranch operations both "on site" and "adjacent"	1 1	2
11. Regional and economic social impact	4	4
12. Highest and best use of surface		
14. Tract position in relation to federal coal leases	4	4
15. Wildlife	1	1
16. Preservation of aquifers		
17. Adequate national supply of energy fuels	3 2	5
18. Possibility of reclamation	2 3 2 3	10
19. Pollution of streams		
20. Dams		

21. End use

22. Air quality

23. Tax revenues

Group 5 and 6

1. Emphasize <u>quality</u> and quantity of coal	1 4 1	6
2. Mining economics	5 3 3	11
3. Emphasize thickness of coal and overburden	1 2 1	4
4. Base coal leasing on demonstrated need	4 5 3 5 4 3 2 1	27
5. Reclaim all land to productivity prior to development (by existing Montana law)	4 1 3 2	10
6. First priority for leasing should be given to BLM coal where surface owner consent has already been acquired and in future with least red tape	5 5 5	15
7. Priority based on transportation facilities where coal development can be expedited	3 1 4	8

BILLINGS - Group 5 and 6 (continued)

8. Priority should be given to environmental and cultural considerations - wildlife, range, archaeology, aesthetics, etc.	5		5
9. Emphasize net energy return (tangible and untangible)	4		4
10. Carefully evaluate and assess existing coal already leased before considering new leases	5	2 2	12

Group 7 and 8

1. Tracts satisfy federal, state and local regulation (i.e., Surface Reclamation Act)	4 4 4		20
	1 4 3		
2. Maximum coal recovery per acre	3 4 2		9
3. Mining economics	2 5 2		17
	3 5		
4. Thickest coal beds (low strippable ratio)			
5. Shallowest overburden (low strippable ratio)			
6. Coal quality (Btu, ash, sulfur, moisture)	2 5		7
7. Feasible mining unit	5 3 2		14
	4		

9. National needs	1 2 5		8
10. Geographic location	1		1
11. Proximity to existing transportation	1 1		2
12. Archaeologic values			
13. High percent fed coal	5 1		6
14. Federal government must shorten process and be able to make a decision without continual recycling			

Group 9 and 10

1. Surface and mineral owners consent	5 5 2		13
	1		
2. Minimum environmental impact vs. maximum resource recovery	4 5 5		14
3. Ready market for the product			
4. Effect of mine on area hydrology and water quality	3 5		8
5. Long term effect to resource utilization in the area	1		1
6. Reclaimable by legal standards	5 4		9
8. Economically viable mining unit	3 3 3		9

BILLINGS - Group 9 and 10 (continued)

9. Longer total life of the mine			
10. Air quality under Clean Air Act	1	3	4
11. Consider alternative areas for highest and best use			
13. Reclamation possibilities to higher productive values (agricultural use or timber) with landowners input	1	4	2
14. Transportation and access to existing facilities	2	2	2
17. Coal quality (compliance)			
18. Place of use			
19. Location of people associated with coal development (effects such as taxation and living cost)	3	4	4
		2	
20. Potential for industrial zoning	1	1	2
22. Economics of the market place considered for orderly development			
23. Amount of remaining exploration to be done			

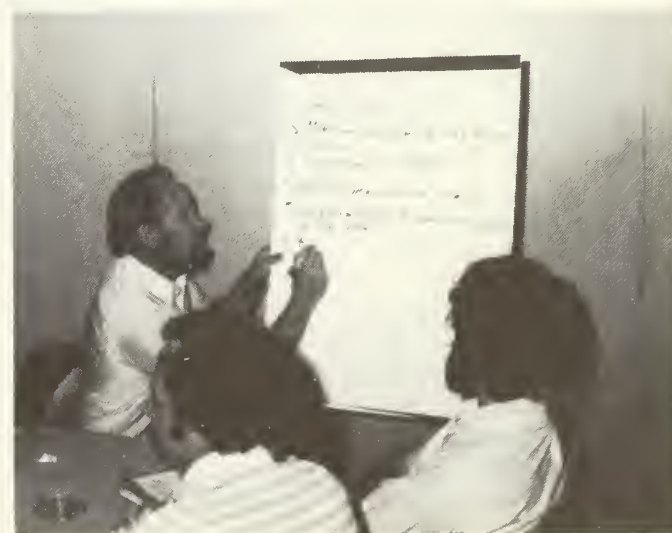
26. Consider whether federal government owns only coal or coal and other minerals

27. Disruption of public utilities 4 4

Group 11 and 12

2. Prevent significant deterioration of the quantity and quality 5 3 4 17
1 4

4. Establishment of the need for additional leasing, balance all tracts 5 4 2 11



BILLINGS - Group 11 and 12 (continued)

5. Economics of mining an area - lowest cost to the consumer	1 5 3	9
6. Minimizing the social impacts	1 2 4 5	12
7. Maximizing the recovery of the coal resource	3 3 1	7
8. The burden is on the BLM to identify and minimize the (economic) impacts on the local population (tax)	2	2
9. Permission of the surface owners within the tracts should be a primary consideration before tract selection	4 4 5 5	18
10. Proximity to existing mining operations	2	2
11. Proximity to existing trans- portation facilities	1	1
12. Alternative end use on site conversion vs. export, scope of the impacts	2 1 2	5
13. Propose upland sites vs. alluvial valleys	3 3	6

summary analysis

This section displays the analysis that BLM completed using the 18 workgroup voting sheets, (items and scoring).

This was done in the following way:

Each criterion was placed into a category of similar criteria. This step was necessary in order to summarize across all groups from each of the three meetings.

Fourteen major groups of concerns and ideas emerged. Several of the 14 groups had sub-categories. Personal judgement was used to place each criterion. BLM employees did not anticipate the types or number of items/categories until the meetings were completed. It should be made clear, however, that other persons or groups would not necessarily develop the same number of categories or interpret them exactly

SUMMARY ANALYSIS (continued)

as BLM did. The item placement within all categories is displayed in this section for review.

Within each category, the points from the workgroup criteria were totaled. The following pages, which precede the listing of all items and categories, are a summary of the total points received by each group of decision criteria. In addition, the number of different groups which addressed the criteria in that category is also displayed. Some categories received relatively low total points but emerged in a large number of group discussions. In these cases, concern appears to be broad but not particularly intense.

Summary of Voting Results and Group Selection
Under the Following Areas of Concern

<u>I. Coal Resource</u>	<u>Votes</u>	<u>Groups</u>
A. Conservation	25	4
B. Coal Quality	20	6
C. Feasible Mining Unit	102	9
D. General Coal Resource	<u>9</u>	<u>3</u>
TOTAL	156	*15
<u>II. Mining Economics</u>	110	11
<u>III. Water Resources</u>		
A. Ground Water Impacts	75	8
B. Water Resources	118.4	13
C. Water Availability	<u>8</u>	<u>2</u>
TOTAL	201.4	16
<u>IV. Need</u>		
A. Additional Leasing	161.4	13
B. Existing Lease Capability	<u>42.4</u>	<u>5</u>
TOTAL	203.8	15

*Because a workshop group may appear in more than one subject subgroup, the major heading total may not equal the sum of the subheading totals.

V.	<u>Environmental Concerns</u>		
	A. Alluvial Valleys	21	3
	B. Wildlife Effects	8.4	5
	C. Air Quality Impacts	4	4
	D. Archaeology	1	3
	E. Recreation	1	1
	F. Land Use Changes	23	7
	G. General Environmental Concerns	<u>130.2</u>	<u>10</u>
	TOTAL	188.6	16
VI.	<u>Social, Economic, and Cultural</u>		
	A. Social Impacts	62.4	6
	B. Local Economic Impacts	40	5
	C. Impacts on Existing Agricultural Operations	36	7
	D. General Social, Economic and Cultural Effects	<u>68.4</u>	<u>7</u>
	TOTAL	206.8	15
VII.	<u>Surface Owner's Consent</u>	148.8	11
VIII.	<u>Reclamation</u>		
	A. Reclamation Potential	82.8	12
	B. Surface Owner's Participation	55	4
	C. Improved Productivity of Land	<u>52</u>	<u>6</u>
	TOTAL	189.8	13
IX.	<u>Geographic Location</u>		
	A. Existing Development	62.4	9
	B. Transportation Effects	<u>67</u>	<u>13</u>
	TOTAL	129.4	16

X.	<u>End Use</u>	52	7
XI.	<u>Administrative Concerns</u>	39	4
XII.	<u>Net Energy Return</u>	12	3
XIII.	<u>Competition Between Federal Coal and Private Coal</u>	7	2
XIV.	<u>Non-Classified Items</u>	22	6

I. COAL RESOURCE

This broad area of concern addresses those criteria directly associated with the coal resource proper.

A. Conservation

These comments focus on determining the amount of strippable coal in each tract and the tons of strippable coal per acre in each tract to insure full recovery of the resource.

A-1	7. Tracts with highest yield (tons per acre) should be leased	2	3	5	
B-1/2	10. Tracts where all seams can be mined - least coal wasted	4		4	
B-7/8	2. Maximum coal recovery per acre	3	4	2	9
B-11/12	7. Maximizing the recovery of the coal resource	3	3	1	7

TOTALS - 25 points, 4 groups

B. Coal Quality

These comments address the chemical and physical properties (ash content, sulfur content, moisture content, Btu value) of the coal.

A-5	9. Coal quality	3		3
A-6	11. Coal quality (tons/acre, Btu, ash waste, etc.)			

B. Coal Quality (continued)

B-1/2	7. EPA compliance coal	3	1	4	
B-5/6	1. Emphasize <u>quality</u> and quantity of coal	1	4	1	6
B-7/8	6. Coal quality (Btu, ash sulfur, moisture)	2	5	7	
B-9/10	17. Coal quality (compliance)				

TOTALS - 20 points, 6 groups

C. Feasible Mining Unit

Designation of tracts which can be mined with existing technology and under current legislative/administrative standards is the focus of these criteria.

A-5	8. Incorporation of federal coal and non-federal coal in a land use plan	5		5	
A-6	4. Relationship with private and deeded land				
A-10	1. Logical site specific mine location (unit)	5	4	9	
A-10	9. Federal coal should be leased where sufficient non-federal coal can be combined to form logical mining unit	4	2	4	12

I. COAL RESOURCE

C. Feasible Mining Unit (continued)

A-11/12	8. Federal coal should be leased where sufficient federal coal can be combined to form logical mining units	5 5	10
F-1	4. Location within a logical mining unit	5 5	10
F-2	1. Mining around a federal section, making it uneconomical to mine	3 4 3	10
B-1/2	4. Sufficient economic coal reserves to support a commercial mining operation	1 5 5	11
B-1/2	13. Encourage utilization of federal coal with the development of non-federal coal	2 1 2 4 2	11
B-3/4	14. Tract position in relation to federal coal leases	4	4
B-7/8	7. Feasible mining unit	5 3 2 4	14
B-7/8	13. High percent fed coal	5 1	6
TOTALS - 102 points, 9 groups			

D. General Coal Resource

These comments centered on all or part of A, B, or C above and are basically concerned with the coal resource.

A-4	2. Determine the ratio of deep minable coal to strip minable coal	4	4
A-8	4. Most coal and quality for area mined	1 4	5
B-9/10	9. Longer total life of the mine		
B-9/10	23. Amount of remaining exploration to be done		
TOTALS - 9 points, 3 groups			

II. MINING ECONOMICS

This category addresses those criteria (for example stripping ratios) which directly effect mining costs.

A-1	2. Compare economics of mining tracts	5 2 2 2 5	16
A-2	6. Ease of mining - econ.	1	1
A-11/12	3. Development priority based on most economic LMUs	5 1 4 5	15
F-1	1. Economic attractiveness of a particular tract	3	3
F-2	3. Total recoverable reserves per acre stripping ratio/quality	2	2
B-1/2	11. Overburden/coal thickness/ratios	4	4
B-3/4	1. Industry choice (economics)	2 5 5	12
B-3/4	5. Quantity and quality of coal/overburden, thickness, etc.	4 3	7
B-5/6	2. Mining economics	5 3 3	11
B-5/6	3. Emphasize thickness of coal and overburden	1 2 1	4

B-7/8	3. Mining economics	2 5 2 3 5	17
B-7/8	5. Shallowest overburden		
B-7/8	4. Thickest coal beds (low strippable ratio)		
B-9/10	8. Economically viable mining unit	3 3 3	9
B-9/10	22. Economics of the market place considered for orderly development		
B-11/12	5. Economics of mining an area - lowest cost to the consumer	1 5 3	9
TOTALS - 110 points, 11 groups			

III. WATER RESOURCES

This broad area of concern focuses on the potential impacts and availability of surface and ground water.

A. Ground Water Impacts

These comments center on the need to determine the potential for preservation or restoration of existing aquifers if mining takes place.

A-2	3. Least ground water disturbance	5 2 2	7
		4 1 3	
A-3	2. Concentrate on areas where there will be no ground water disturbance	2 1 4	11
		4	

A-6	7. Ground water quantity and quality	3	4
A-8	8. Damage done to underground water	1 1	2
A-10	15. High priority for leasing should be given areas which are not ground water recharge areas	4	4
A-11/12	1. Emphasize leasing based on subsurface water restoration	4 4 4	29
		4 4 4	
		5	
F-1	7. Ground water	3 2 2 1	8



III. WATER RESOURCES

B-3/4 16. Preservation of aquifers

TOTALS - 75 points, 8 groups

B. Water Resources

Both potential surface and subsurface (ground water) water effects are included in these comments.

A-1	11. Effect of mining on hydrology	4 1 4	16
A-2	13. Impacts of flood water in small drainages	2	2
A-3	7. Least off-site effects on quality and quantity of water and surrounding land and landowners	4 4 3 2 5	18
A-4	11. Impact of mining on surface, lakes, streambeds, and aquifers	3	3
A-5	12. The effect of mining on water quality		
A-6	5. Effect of mining on water on tract and adjacent area	4 2	6

A-7	3. Ground and surface water determine the existing situation first and lease where least impact will occur to ground and surface water			6.4
A-8	2. How will the watershed be affected	3 3		6
F-2	7. Hydrology, ground and surface. As it relates to adjoining lands (aquifers, damming, pollution)	5 1 4		14
B-1/2	9. Least impact on hydrologic environment	5 3 3		11
B-3/4	3. Hydrology (ground and surface both)	4 4 3		11
B-3/4	19. Pollution of streams			
B-3/4	20. Dams			
B-9/10	4. Effect of mine on area hydrology and water quality	3 5		8
B-11/12	2. Prevent significant deterioration of the quantity and quality	5 3 4 1 4		17
TOTALS - 118.4 points, 13 groups				

III. WATER RESOURCES

C. Water Availability

Impacts on existing water uses and availability of water for industrial purposes are included in this category.

A-2	14. Availability of water rights for mining and increasing populations	4		4
A-5	11. Availability of water for development	2	2	4

TOTALS - 8 points, 2 groups

IV. NEED

This category contains criteria on the need or demand for additional federal coal leasing.

A. Additional Leasing

These comments focus on the national need for federal coal in Montana

A-3	4. Establish need for further federal coal leasing	3	1	5	14
A-4	3. Coal should be mined	5			5
A-4	5. The need for more coal lease avoid existing and potential	5	5	5	15
A-5	15. Can demand be satisfied from expanding existing mines in the region and outside the region	5	2		7

A-6	1. Establish need	5	5		10
A-6	3. Acreage (is more needed)	1			1
A-7	5. Determine the need for more fuel coal before offering any new leases				6.4
A-8	1. There shouldn't be any more federal coal leased	4	5	1	10
A-8	5. If the country needs the coal, go get it	5	5	5	15
A-10	7. Consideration should be given national need and areas subject to mining should consider development time frames	1	5	2	12
F-2	2. The need, the market	4	5	2	11
B-3/4	17. Adequate national supply of energy fuels	3	2		5
B-5/6	4. Base coal leasing on demonstrated need	4	5	3	27
		5	4	3	
			2	1	
B-7/8	9. National needs	1	2	5	8
B-9/10	3. Ready market for the product				
B-11/12	4. Establishment of the need for additional leasing, balance for all tracts	5	4	2	11

TOTALS - 161.4 points, 13 groups

IV. NEED

B. Existing Lease Capability

This category of criteria contains ideas on the need to determine if existing leases can meet potential demand/need.

A-7	4. Existing leases should be Mined before any new leases			6.4
A-10	8. No leasing until currently leased coal has been developed	1		1
F-1	8. Existing leases should be mined			
B-1/2	3. Necessity for leasing coal (existing leases (state and private) market conditions)	5 4 3	2 1 2	23
		1 5		
B-5/6	10. Carefully evaluate and assess existing coal already leased before considering new leases	5 2 2		12
TOTALS - 42.4 points, 5 groups				

V. ENVIRONMENTAL CONCERNS

These comments cover a number of potential national environmental impacts (excluding water, which constituted a category in itself).

A. Alluvial Valleys

Location of tracts relative to alluvial valleys is the central concern of these comments.

A-3	5. No mining on irrigated or irrigatable lands	2 3		5
A-4	6. Agriculturally productive land (existing and potential) and valley floor location	4 2 2	2	10
B-11/12	13. Proposed upland sites vs. alluvial valleys	3 3		6

TOTALS - 21 points, 3 groups

B. Wildlife Effects

This category of comments focuses on wildlife and wildlife habitat

A-2	9. Impact on wildlife	1		1
A-4	7. Limit wildlife impact			
A-7	7. Wildlife and environmental consideration (air, etc.)			6.4
F-1	14. Wildlife habitat			
B-3/4	15. Wildlife	1		1

TOTALS - 8.4 points, 5 groups

V. ENVIRONMENTAL CONCERNS

C. Air Quality Impacts

These statements address potential air quality effects of federal coal leasing.

- A-2 8. Dust from mining operations
- F-2 13. Potential air pollution affects on the grass
- B-3/4 22. Air quality
- B-9/10 10. Air quality under Clean Air Act 1 3 4

TOTALS - 4 points, 4 groups

D. Archaeology

This category contains statements on the potential for degrading or eliminating archaeological sites should federal coal leasing occur.

- A-4 8. If there is historical or archaeological value it should not be mined
- F-1 13. Archaeology sites 1 1
- B-7/8 12. Archaeologic values

TOTALS - 1 point, 3 groups

E. Recreation

The potential recreational effects of leasing federal coal is the concern of this comment.

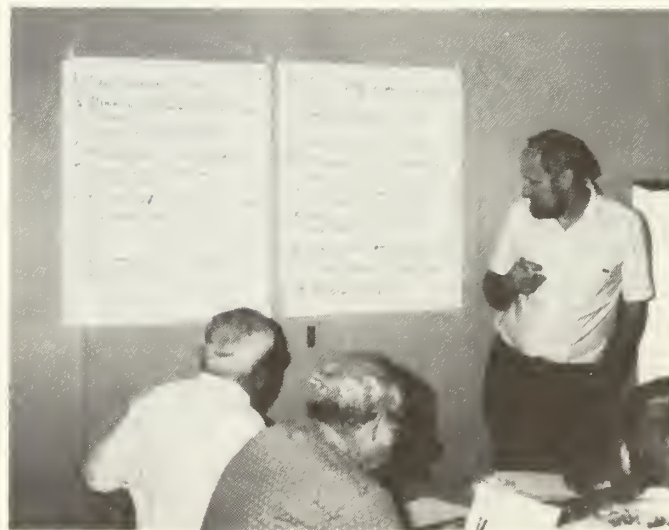
- A-4 10. Impact of mining on recreation 1 1 37

TOTALS - 1 point, 1 group

F. Land Use Changes

These statements center on the potential land use effects (both on site and in adjacent areas) of federal coal leasing.

- A-2 5. Impacts on land 4 4
- A-2 11. Impacts on land adjacent to mine 2 2
- A-5 17. Existing food production capacity or future production capacity 1 5 6
- A-6 10. Terrain and vegetation
- A-8 9. Present use of land 3 3



V. ENVIRONMENTAL CONCERNS

F. Land Use Changes (continued)

B-1/2	8. Present land use vs. coal development - establish priority (productivity)	1 4	5
B-3/4	4. Physical characteristics of the land in questions		
B-3/4	12. Highest and best use of surface		
B-9/10	20. Potential for industrial zoning	1 1	2

TOTALS - 23 points, 7 groups

G. General Environmental Concerns

These ideas fall into the environmental category but do not fall into any single one of the preceding sub-categories.

A-2	7. Disturbance to ecosystem	5 5 5	21
	a. soils	3 3	
	b. air		
	c. ground water/surface water		
	d. wildlife		
	and the ability to restore these to the conditions that existed before mining		
A-2	10. Impacts on river ecosystem and surface water	3 3 2	8
A-3	3. Concentrate on least productive agricultural land	3	3

A-4	4. Above average aesthetic value should not be mined	5	5
A-5	6. How total land will be disturbed by all the associated activities		
A-5	13. What will be the effect of mining this tract in terms of the survival of the human race	5 1 2 3 4 5	20
A-5	18. Pollution impacts (water, air)	1	1
A-7	10. Consider the effect on on land and water		6.4
A-7	12. Determination of critical areas that should not be mined first		6.4
A-7	13. Consideration of the existing natural resources		6.4
A-8	6. Minimum disruption to land, environment, and minimum water use	2 2 3	11
A-10	3. Ecological considerations should be given significant weight, i.e., wildlife, hydrology, agriculture (grazing), recreation, land forms	3 5	8

V. ENVIRONMENTAL CONCERNS

G. General Environmental Concerns (continued)

A-10	5. Degree of offsite impact should be weighed. Areas where impacts are severe should be precluded from mine development	5	5	
B-3/4	9. Most coal with least disturbance	3	5	2 10
B-5/6	8. Priority should be given to environmental and cultural considerations - wildlife, range, archaeology, aesthetics, etc.	5	5	
B-9/10	2. Minimum environmental impact vs. maximum resource recovery	4	5	5 14

TOTALS - 130.2 points, 10 groups

VI. SOCIAL, ECONOMIC, AND CULTURAL

These ideas address the potential social, economic, and cultural effects of coal development.

A. Social Impacts

These statements focus on the potential social impacts, both tract specific and regional, associated with leasing a tract.

A-2	1. Impacts on local population (undue disruption)	3	4	2 18
		4	5	
A-4	12. Public opinion in areas to be mined	5	3	8
A-5	4. Human concerns	4	3	7
A-5	5. Leasing scheduled to minimize impacts to local communities	2		2
A-7	6. Consider the people living in the lease area			6.4
F-2	10. Permanent/temporary off-site damage people problems	1	1	3 5
F-2	12. What is the feeling of the <u>immediate</u> area residents in the affected area	3	1	4
B-11/12	6. Minimizing the social impacts	1	2	4 12
			5	

TOTALS - 62.4 points, 6 groups

VI. SOCIAL, ECONOMIC, AND CULTURAL

B. Local Economic Impacts

The fiscal costs to local residents and tax revenues generated by coal development are criteria in this category.

A-10	2. Economic consideration given priority from surface owners and local community points of view	1 3 5	10
F-2	8. Economic benefits to the state, taxes, jobs, in the long term	5	5
F-2	15. Ability of a community to absorb the impacts of increased population (local taxes)	4 3 3	10
B-3/4	23. Tax revenues		
B-9/10	19. Location of people associated with coal development (effects such as taxation and living cost)	3 4 4 2	13
B-11/12	8. The burden is on the BLM to identify and minimize the (economic) impacts on the local population (tax)	2	2

TOTALS - 40 points, 5 groups

C. Impacts on Existing Agricultural Operations

These statements are concerned with the existing agricultural operations and potential effects of federal coal leasing on these operations.

A-2	12. Impacts on BLM and state grazing permittees	1	1
A-3	9. Consider LAU (logical agricultural units) within leasing areas	1 1	2
A-5	10. How will leasing/mining affect adjacent landowners' operations	3	3
A-8	10. Always consider agriculture before industrial development	3 2 2	7
F-1	7. Rancher's economic unit	2 5 3 4	14
F-2	5. Which tract would cause the least amount of conflicts with existing ranching/farming operations (existing land use)	2	2
F-2	11. What affect the mine has on adjacent ranching operations. People related problems. Perm/temp	2 3	5
F-2	16. Are we sacrificing an existing business for a new business. Perm/temp		

VI. SOCIAL, ECONOMIC, AND CULTURAL
 C. Impacts on Existing Agricultural
 Operations (continued)

B-3/4 10. Effect of mining on 1 1 2
 existing ranch operations
 both "on-site" and
 "adjacent"

TOTALS - 36 points, 7 groups

D. General Social, Economic and Cultural
 Effects

These items contain references to social,
 cultural, and economic considerations as
 leasing criteria.

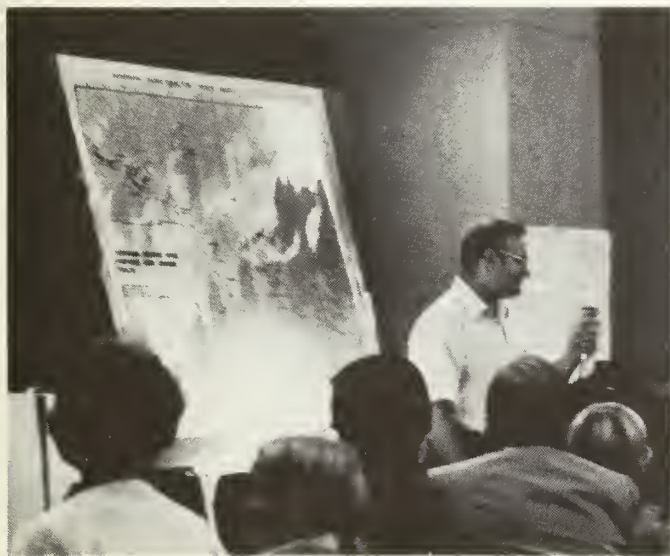


Photo by Patrick Dawson, *Hillings Gazette*

A-3	8. Social and economic impact on local population	4		4
A-7	1. Socio-economic impact (school and community)			6.4
A-8	3. Social, economic, and cultural effects, and the ability of the community to deal with those effects	4 4 4 5 1		18
A-11/12	2. Mining should minimize socio- economic impacts to local communities	3 5 3 3		14
F-1	3. Long term economic and social impacts	4 5 3		12
B-1/2	1. Minimum disturbance to social/economic regime (status quo)	3 5 3		11
B-3/4	11. Regional and economic social impact	4		4
TOTALS - 68.4 points, 7 groups				

VII. SURFACE OWNER'S CONSENT

These items refer to the necessity of considering whether or not the surface owner wants the coal to be mined (or not mined)

A-1	1. Opinion of residents and owner in particular tract should be in favor of coal leasing	1 2	3
A-1	4. Surface owner's consent "for" and "against"	3 4 5 5 2	19
A-2	4. Views of surface landowner take precedence over mineral owner	4 3 5 1	13
A-3	6. Surface owner consent prior to considering leasing	5 2 5 1	13
A-7	8. Will of the people that own the land		6.4
A-7	1. Determination of what the "surface right" is		6.4
A-11/12	9. Base coal leasing on availability of surface owners consent	5 5 2 2 1 5	20
F-2	6. Surface owner consent	5 1	6
B-1/2	6. Conflict between surface and subsurface ownership	4	4

B-3/4	2. Landowner consent	2 5 5	12
B-5/6	6. First priority for leasing should be given to BLM coal where surface owner consent has already been acquired and in future with least red tape	5 5 5	15
B-9/10	1. Surface and mineral owners consent	5 5 2 1	13
B-11/12	9. Permission of the surface owners within the tracts should be a primary consideration before tract selection	4 4 5 5	18

TOTALS - 148.8 points, 11 groups

VIII. RECLAMATION

This general area of concern contains items which address the reclamation aspect of potential future mining.

A. Reclamation Potential

These comments center on whether or not the tracts can be reclaimed.

A-1	5. Affect of mining on present land use and potential of restoration for that use				
A-1	9. Condition of land prior to mining compared to condition after mining	2		2	
A-2	2. Availability of reclamation of land	4	1 5	13	
			1 2		
A-5	16. Reclamation feasibility	1	2	3	
A-7	2. Ability to return the land to production (highest economic use)			6.4	
A-7	14. Ability to return the land to its former agricultural productivity			6.4	
A-10	10. Coal should be leased where surface and sub-surface reclamation potential is high	2		2	
A-10	13. If land under coal lease has high production potential, it should be reclaimed to high potential	3		3	
A-11/12	10. Emphasize coal leasing in areas which can be most easily reclaimed	1	1	2	
F-1	5. No leasing until reclamation processes are developed that are successful	1	5	6	
F-2	14. Permanent reclamation potential	3	5 2	10	
B-1/2	12. Proven reclamation capability (complying with Montana laws)				
B-1/2	14. Consider state of Montana selective denial (sec. 9 reclamation)				
B-3/4	18. Possibility of reclamation	2	3 2	10	
			3		
B-5/6	5. Reclaim all land to productivity prior to development (by existing Montana law)	4	1 3	10	
			2		
B-9/10	6. Reclaimable by legal standards	5	4	9	

TOTALS - 82.8 points, 12 groups

VIII. RECLAMATION

B. Surface Owner's Participation

The consultation of the surface owner in defining the reclamation objective is the focus of these statements.

A-1	10. Landowner's reclamation objective and reasibility	5	1	3	13
				4	
A-11/12	11. Landowners have right to determine how land will be reclaimed and have more input into mining reclamation plan	3	2	3	28
				5	
				1	
				3	
				3	
				2	
				2	
				1	

F-1	9. Return to earlier reclamation methods (economic benefit to landowner)	2	4	1	7
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B-9/10	13. Reclamation possibilities to higher productive values (agricultural use or timber) with landowners input	1	4	2	7
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TOTALS - 55 points, 4 groups



photo by Patrick Dawson, *Billings Gazette*

VIII. RECLAMATION

C. Improved Productivity of Land

The potential for improving the surface productivity of the land was forwarded as a criteria by persons who submitted these ideas.

A-1	6. If the condition of the land for agriculture can be improved through mining and reclamation, it should be given "A" priority	3 4 5 1 1 5	19
A-4	14. Reclaimable to near level contour	5	5
A-10	11. Lease areas where reclamation can increase the present productivity of the land on a long term basis	2 4 3	9
A-10.	14. Federal coal should be leased where land use can be improved by coal development	3	3
A-11/12	4. Reclaim topography to maximize farming potential	2 1 5	8
B-1/2	2. Productive land from non-productive (after mining)	3 5	8
B-9/10	11. Consider alternative areas for highest and best use		
TOTALS - 52 points, 6 groups			

IX. GEOGRAPHIC LOCATION

This category contains comments which indicate that the geographical location of tracts should be used in tract selection

A. Existing Development

The relation of the tract to existing development is the central idea of these comments.

A-4	1. Should be adjacent to (joining a common section line) an operating mine	5	5
A-6	8. Relationship to existing leases		
A-6	9. Expand on or adjoining existing leases first	2 2 4	8
A-7	9. Consider expanding existing mines rather than opening new ones in completely different areas (long ways from rail, etc.)		6.4
A-11/12	6. Do not confine new mining development to existing mine areas	2 1 3 4	10
A-11/12	7. Do not confine new mining development to existing mine areas	4 2 3 4	13
F-1	10. Leases to complete existing mining blocks because of transportation and other reasons	4 4	8

IX. GEOGRAPHIC LOCATION

A. Existing Development (continued)

B-1/2	15b. New areas that are away from existing coal mines			
B-1/2	16. Encourage leasing near existing mines			
B-3/4	7. Position relative to operating mines	5	4	9
B-7/8	10. Geographic location	1		1
B-11/12	10. Proximity to existing mining operations	2		2
TOTALS - 62.4 points, 9 groups				

B. Transportation Effects

Existing and new transportation facilities (railroads, slurry lines, etc.) associated with development are included in this category of statements.

A-1	8. Availability and type of transportation	1	3	1	8
A-3	1. Transportation facilities available (railroads)	2			2
A-4	16. Presence of existing export transportation next to tract	2	4	3	9

A-5	3. Closeness to communities	5			5
A-6	12. Impact on transportation network on local people				
A-8	7. Offsite damages (railroads, transmission lines, whatever)	5	2	3	10
A-10	6. Transportation should exist or where proposed transport is feasible	3			3
B-1/2	5. Feasibility potential to transportation sources	1	2	4	11
B-3/4	6. Distance from existing transportation	1	1		2
B-5/6	7. Priority based on transportation facilities where coal development can be expedited	3	1	4	8
B-7/8	11. Proximity to existing transportation	1	1		2
B-9/10	14. Transportation and access to existing facilities	2	2	2	6
B-11/12	11. Proximity to existing transportation facilities	1			1
TOTALS - 67 points, 13 groups					

X. END USE

These comments center on where and how (export, onsite generation, gasification, slurry pipeline, etc.) potentially leased federal coal would be used.

A-3	10. Full public disclosure of end use of coal must be made prior to leasing recommendations	5	3	3	18
A-4	13. Require export only	4	1	1	6
A-4	17. Slurry pipeline preferred particularly in remote areas	5	1		6
A-5	14. What is the need, ultimate end use, for the coal	4	4		8
A-6	13. Final determination of end use of coal mined (where and how)	5	4		9
B-3/4	21. End use				
B-9/10	18. Place of use				
B-11/12	12. Alternative end use on site conversion vs. export, scope of the impacts	2	1	2	5
TOTALS - 52 points, 7 groups					

XI. ADMINISTRATIVE CONCERNS

The necessity of compliance with all applicable laws, policies, and regulations is the focus of these comments.

A-6	2. Directive to lease	1	3		4
A-10	4. EPA compliance	1	1	2	5
A-10	12. Federal coal should be leased to accommodate existing state coal conservation legislation				
A-11/12	5. Provide more time for public input in future nominations and gather input from those not able to participate in present nominations	1	2	1	6
B-7/8	1. Tracts satisfy federal state, and local regulation; i.e., surface reclamation act	4	4	4	20
B-7/8	14. Federal government must shorten process and be able to make a decision without continual recycling	1	4	3	
TOTALS - 39 points, 4 groups					

XII. NET ENERGY RETURN

These ideas center on determining how much energy (in mining, converting, and transporting coal) is needed to produce additional energy from coal.

A-4	9. The net energy produceable from the tracts	3	3
A-5	7. Net energy output	4 1	5
B-5/6	9. Emphasize net energy return (tangible and untangible)	4	4

TOTALS - 12 points, 3 groups

XIII. COMPETITION BETWEEN FEDERAL COAL AND PRIVATE COAL

This category contains statements that address the potential for federal coal availability to devalue private coal.

F-2	9. Is the federal government in competition in offering their leases with private landowners or existing operations		
B-1/2	15. Encourage a competitive ownership of federal coal	2 5	7

TOTALS - 7 points, 2 groups

XIV. NON-CLASSIFIED ITEMS

This category contains concerns that are unclear or may have multiple meanings.

A-5	1. Highest percent of federal surface ownership	3	3
A-5	2. Feasibility of mining the coal economically, socially, geographically	3 1 4	8
A-4	15. Avoid national forest land		
A-6	6. Econ (tax) and econ consideration on total adjacent area of tract with primary consideration on surface water of said tract.	3	3



XIV. NON-CLASSIFIED ITEMS (cont.)

F-1 2. Least lasting damage to 1 2 3 6
worthwhile conflicting
interests economically or
aesthetically

B-3/4 8. Proximity to markets 1 1

B-9/10 5. Long term effect to 1 1
resource utilization in
the area

B-9/10 26. Consider whether
federal government owns
only coal or coal and
other minerals

TOTALS - 22 points, 6 groups

application

This section summarizes on a step-by-step basis, the processes that BLM has gone through in regard to the potential leasing of federal coal in southeastern Montana. The proposed federal leasing action, which is to be addressed in the Northern Powder River Basin Regional Environmental Statement, is also included.

Detailed descriptions and analyses are available at BLM offices in Miles City and Billings. Interested persons should contact these offices if more complete information is desired.

I. Land Use Planning

BLM had gone through a multi-year, multi-resource land use planning process before the meetings were held in August 1977. Management Framework Plans, (MFPs) had been developed for the Decker-Birney, South Rosebud, and Coalwood Planning Units. These Land Use Plans identified areas in which BLM would consider coal leasing.

II. EMARS

In June 1976, a call for Industry Nominations and Areas of Public Concern was issued as required by the Energy Minerals Activity Recommendations System (EMARS) regulations. The Industry Nominations

outlined mining tracts, including federal, state, and private coal, as provided for in the regulations. Using this information, the MFP lease consideration areas were revised in the following manner.

All coal lease nominations that fell entirely within the previously completed MFP lease consideration areas were included in the identification of revised potential lease areas. All coal lease nominations that fell 50 percent within the MFP lease consideration areas with a one mile buffer zone were also included.

The nominations which did not meet these criteria were then evaluated to determine if significant



new information was presented that would warrant revisions of the MFPs. It was decided that they did not meet the standard.

The responses describing areas of public concern provided information pertaining to the surface resources over the federal coal. This information was used in the next step which involved an analysis of the resource conflicts within the revised MFP lease consideration boundaries.

III. Preferred Leasing Areas

Ten preferred leasing areas were identified after a group of resource specialists, representing such disciplines as range science, watershed and wildlife biology, had completed a section-by-section analysis of potential surface conflicts with mining. These ten preferred lease areas were sent to the US Geological Survey for delineation into logical mining units (LMUs).

IV. Proposed Leasing Tracts

The US Geological Survey determined that there was insufficient data to delineate logical mining units. Therefore, the Geological Survey identified 23 proposed leasing tracts based on the following criteria:

1. Depth of overburden
2. Topography and geological data
3. Location relative to existing and proposed railroads

4. Location relative to support facilities
5. Location relative to existing federal leases
6. Potential to insure a competitive lease sale
7. Reserves sufficient to support a 2-10 million-tons-per-year mine for 40 years

V. Initial Coal Lease Area Proposals

The Proposed Lease Tracts, identified by the US Geological Survey, included coal outside the Preferred Lease Areas identified by BLM. For purposes of coal conservation, these areas were added to the BLM Preferred Leasing Areas and the expanded areas became the BLM Initial Coal Lease Area Proposal. These were the areas presented to persons who attended the August 1977, meetings.

VI. Analysis of Public Meeting Criteria

The public meetings workshop process in August 1977, resulted in 14 broad areas of concern (criteria). Each of these 14 criterion was evaluated and placed into one of the following categories: 1) those items that have been analyzed in BLM's previous planning efforts using existing data; 2) those items that will be analyzed in the subsequent environmental statement and/or technical examination--environmental analysis; 3) those items which would require changes in existing policies, laws or regulations at either the state or national level; and 4) those items which are too broad in scope for analysis in either BLM's planning system or the regional environmental statement. This categorization was necessary to follow through on BLM's commitment to use the workshop-generated criteria to the fullest extent possible.

VII. Analysis of Existing Data

The Preferred Lease Area analysis (on a section-by-section basis) was revised to identify the significant resource conflicts in each tract. Those resources rated as having a high value and having a low potential for restoration or reclamation were identified. Four areas of concern were added to the analysis as a result of the meetings. It was determined that data on soil reclamation potential, hydrology, need, and end use was available for application into the analysis.

VIII. Prioritization of Tracts

The 23 tracts identified in the Initial Proposed Lease Areas were prioritized, using the criteria established through the workshop sessions and the previous analysis. This was done so that a lease schedule could be developed if necessary. These priorities will also be used in directing BLM's efforts to fill data gaps identified in previous analyses.

IX. Submission of a Proposed Federal Leasing Action

Upon completion of the prioritization (1 to 23) of the potential leasing tracts, BLM placed each of the tracts into one of three levels. These levels were developed on the basis of meeting needs for federal coal at existing mining operations and to meet potential demand in the 1985-1990 period. This was

accomplished through examination of industry nominations, surveys of industry plans completed by the Federal Energy Administration, and other regional coal supply/demand studies. The tracts in Levels 1 and 2 constitute the proposed federal leasing action to be addressed in the Northern Powder River Basin Regional Environmental Statement.

Below are the three levels. The individual tracts are identified which were placed into each level. Following this listing, a regional map is presented which enables the reader to locate each tract relative to other tracts within the region.

LEVEL 1 - Lease the federal coal in the following tracts within one year after completion of the regional environmental statement. These tracts are adjacent to existing mining operation for which all or part of the federal acreage involved is covered by existing mining plans:



Decker A
Decker B
Decker C
Colstrip B
Colstrip C
Colstrip D

LEVEL 2 - Federal coal in the following tracts should be leased as needed to meet potential demand in the 1985-1990 period. The following tracts are proposed based upon BIM's analysis of existing data, public concerns, and the anticipated need for additional federal coal leasing identified through supply/demand review:

Colstrip A
Decker D
Ashland
Otter Creek A
Otter Creek B
Otter Creek C
Dog Creek

All of the tracts in categories 1 and 2 should be addressed on a site specific basis in the regional environmental statement.

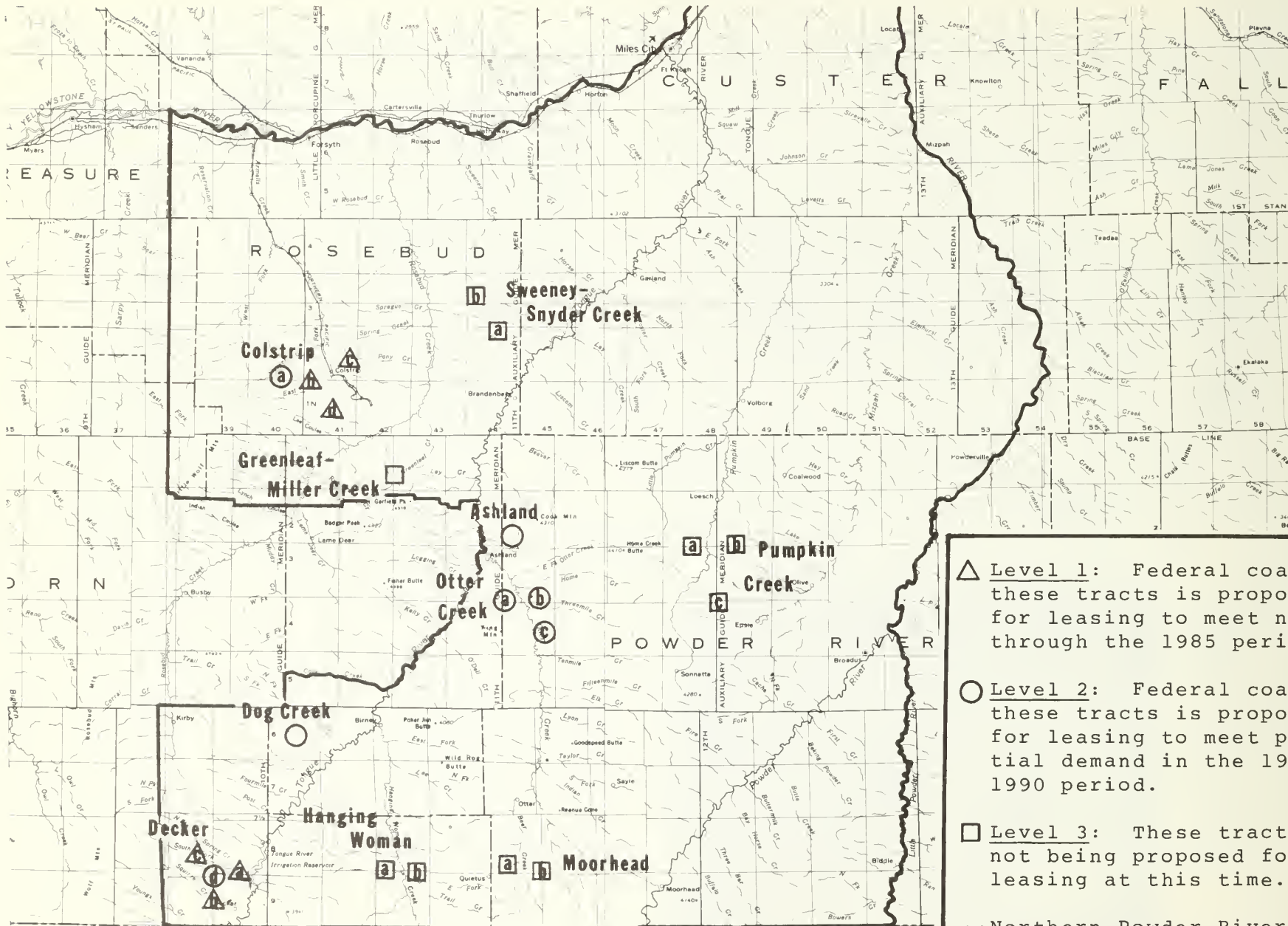
LEVEL 3 - These tracts are not being proposed for lease at this time. However, they do represent logical alternatives to the Level 2 tracts above, as well as the most likely areas for expansion over and above the Level 2 tracts, should future demand warrant leasing:

Moorhead A
Moorhead B
Hanging Woman A
Hanging Woman B
Pumpkin Creek A
Pumpkin Creek B
Pumpkin Creek C
Sweeney-Snyder Creek A
Sweeney-Snyder Creek B
Greenleaf-Miller Creek

X. Decision

Upon completion of the Northern Powder River Regional Environmental Statement, tracts may be recommended for proposed leasing to the Secretary of the Interior for his decision regarding leasing.

Proposed Coal Leasing Tracts



Level 1: Federal coal in these tracts is proposed for leasing to meet needs through the 1985 period.

Level 2: Federal coal in these tracts is proposed for leasing to meet potential demand in the 1985-1990 period.

Level 3: These tracts are not being proposed for leasing at this time.

— Northern Powder River Environmental Statement Study Area.

written comments

The workshops offered everyone attending the meetings an opportunity to voice and document their views. To obtain additional public comment, BLM asked involved persons to send in written comments addressing its coal planning approaches and recommendations.

Seven persons and one organization submitted written responses. Two of these responses were received at the Ashland meeting, one at the Forsyth meeting, and five were received through the mail after the meetings were completed.

This section contains each of the statements that were submitted as of September 14, 1977. All authors of the signed letters except one (who does not have a telephone) were contacted and asked if they wanted their comments included in this publication. All of the persons orally approved their letters being reproduced in full.

In the Greenleaf Miller Creek sec. 31, T. 1 South, Range 43 East,
Sec. 30. T. 1 South, Range 43 East, Sec. 6, T. 2 South, Range 43
East and Sec. 34, T. 1 North, Range 43 East.

If any of this is mined I cannot go on with my ranching.

/s/ Harold Sprague
Rt. 1, Box 46A, Forsyth, Mont.

BLM COAL LEASING HEARING
FORSYTH, MONTANA
AUGUST 10, 1977

I wish to state my opposition at this time to the BLM proposal to reopen the leasing of federal coal in Montana in the near future. First, I believe that with the present 16 billion tons of federal coal under lease and this, combined with state and Indian coal under lease or negotiations for lease and private coal such as Burlington Northern's vast holdings, demonstrates clearly that there is no economic need to resume leasing at this time. To do so would only make it possible for companies now engaged in coal production or leasing to tie up most or all areas of prime producing potential and thereby preclude smaller, independent companies from entering coal production in the future.

Furthermore, I believe that leasing at this time, immediately after the signing of the new strip mine law, is completely inappropriate. Factors such as prohibition of mining on alluvial valley floors and the need for surface owners consent will alter the entire leasing picture and should be properly evaluated before any additional leasing occurs.

At the present time reclamation of western lands is still an experimental science and the experiences to date in Montana indicate that the various methods now used indicate that reclamation is a failure on all mining sites in Montana. I based this statement on personal observation and on a memo from Montana Department of State Lands to Western Energy dated May 1, 1977, quote: "Reclamation at Western Energy's Pit 6 and Pit 6's extension to date must be concluded a failure." Also the state's team involved in writing an EIS for the Northern Powder River Basin have pointed out very serious failures in reclamation on various mines in Montana. I firmly believe there should be no further leasing of federal coal and opening of new mines should not be encouraged or allowed until reclamation can be performed successfully. It is not now being performed successfully in Montana.

Water Quality Management Project
Yellowstone-Tongue APO
Broadus, Montana 59317

August 10, 1977

To: Bureau of Land Management

From: Yellowstone -Tongue APO

Re: Meeting on Proposed Coal Lease Areas

I would like to make three general comments on the relationship of the coal leasing proposals to our project.

- A. Several people who attended our recent series of public meetings expressed concern about the impact of coal mining on groundwater. The YTAPO staff is especially concerned about the impact of mining groundwater recharge areas and in areas where the mine would intercept the movement of subsurface water toward the Tongue River.
- B. The degree of off site impact should be a major criteria. As an example, if loss of wildlife habitat is strictly confined to the mined area, it is a local impact, whereas if major railroad construction is required to haul the coal out, if the movement of subsurface water through spoils causes an increase in the salinity of a river or if a low potential for reclamation causes high sediment loads in adjacent streams, there is a major impact off the site.
- C. It will be very difficult to characterize the water quality of the streams within your study area with only two to five years data. The relationship between water quality and precipitation events, etc., is not well known for the area.

Perhaps I should say that water quality may be characterized as quite variable and that the variability between samples may be too great to show a statistically significant impact due to mining practices.

MRS. E.M. DANIELS
5A Ranch
Birney, Montana 59012

August 13, 1977

Mr. George Neuberg
Miles City District Manager BLM
Box 940 - West of Miles City
Miles City, Montana

Dear Mr. Neuberg:

My husband and I have a small ranch in the Birney area, so of course any proposed coal development is of vital importance to us.

I attended the BLM meeting in Ashland recently and I feel you and most of the personnel there, now know our thoughts on the meeting, but I shall state them again, briefly.

We felt a meeting in Ashland might be appropriate, but not one in Billings. The area of concern was this area, not Billings.

You, Mr. Neuberg and the other personnel stressed again and again that it was "our meeting" and you wanted "our input" into it. Yet you so structured the meeting that those of us who did not believe in any further federal leasing could not register our views. Time and again you stated we were only to "give our ideas on the criteria for federal leasing." It was, in effect, presupposing we were all in favor of further leasing. This is why I choose not to participate in giving any specific suggestions on criteria, or the so called "card method" of choosing one outstanding criteria. It was however, gratifying to me that the majority of those at the Ashland meeting, which was by far the largest attendance of the three meetings, stressed so strongly the views that I have just mentioned.

Therefore, I must now register our insistence of no further federal leasing until the present leases have been exhausted, both federal and private coal. That a national need be established and that the area residents voice be heard. We feel these meetings and your further planning, under your assignment from the former administration, could very well be out-dated and should not be pursued until new, specific assignments are issued to you by that new administration.

I was pleased to meet you, as it is always a pleasure to meet personally with our public servants.

Sincerely,

/s/ Mrs. E.M. Daniels

Copy to State EIS Team

QUARTER CIRCLE U RANCH CO.
Birney, Montana 59102

August 13, 1977

Bureau of Land Management
Miles City, Montana

Dear Sirs:

After attending the Ashland meeting on Federal coal leasing, August 9th, I have had an opportunity to go over the material furnished. Two of the proposed areas are near my ranch, and I am quite familiar with most of the problems concerning the land and the mining. For what it is worth, I think that the Prairie Dog Creek and Hanging Woman Creek A & B, would be prime areas to lease Federal coal for the following reasons:

1. Each tract has only one ranch surface owner
Prairie Dog Creek - Consolidation Coal Co.
Hanging Woman Creek - Kendrick Cattle Co.
2. Both owners are for coal development
3. Adjoining or nearby lands are owned by ranchers committed to coal development
4. The rough terrain, especially Bull Creek slopes, could only be improved with reclamation
5. State and Federal strip mine laws should be amended to allow for water storage in coal pits for irrigation, for stock water, for fish and for recreation. The Hanging Woman Creek area is a natural for storage and irrigation if the main channel is left open or restored after mining. The storage would help recharge the aquifers downstream. The Prairie Dog Creek area needs livestock water which will be produced in the pits.

Of course the areas near existing mines and near existing transportation should probably have priority.

Sincerely,

/s/ Burton Brewster
Rancher in the Birney Area

P.S. For your information, the area in T. 5 S., R. 41E, and along Tongue River Valley have no valid reason to be classified as areas for public concern.

August 19, 1977

Bureau of Land Management
Miles City, Montana

Gentlemen:

This is in response to the Ashland BLM meeting on coal development. My comments are perhaps not in the exact nature of your request, but they are important to me as an affected landowner and I feel they should be made.

First I wish to congratulate you for the even-handed way the Ashland meeting was conducted. This in the face of constant badgering by NPRC members, who obviously desire total prohibition of coal mining as such in the entire Western U.S.

My brief attendance of these meetings raises several questions; some of which are. How are BLM advisory board members named? This is prompted by constantly reading and hearing Carolyn Alderson expound on coal development. If having two rich grandfathers is a criterion for appointment, she is extremely well qualified--otherwise she is not. If obviously anti-energy people are appointed to the board, are compensatory pro development non industry individuals also named. If not why not?

How is it possible that my opinion and my pro development neighbors likewise, have never been personally solicited by any levels of government. Could this be deliberate? Is it a possibility that the BLM barn is also home to too many NPRC horses?

In my opinion, coal development should proceed immediately at the fastest pace possible, while insuring that existing safeguards are not compromised. This should be the prime thrust of all Federal, State and local effort. Anything less is a stupid embrace of a national "Death Wish."

/s/ Jay F. Owen
Ashland, Montana

Art Hayes, JR.
R Bar Ranch
Birney, Montana 59012

September 2, 1977

Bureau of Land Management
Miles City District
P.O. Box 940
Miles City, MT 59301

Dear Sir:

Having attended the meeting in Ashland on August 9th, we are writing these comments regarding the nominations for federal coal leases and the BLM's proposed leasing areas.

The proposed leasing areas seem to be selected according to industry nominations rather than where increased production could be obtained with the least disruption to people, land, water or the agricultural economy of the area. (Is this "orderly development?") The proposed leases are scattered throughout the study area with seemingly little regard for the impact caused by a new connecting transportation system. The BLM should consider that a transportation system would bring about even more leasing, mining and impacts along that route. Such would be the case with connecting the Prairie Dog - Hanging Woman - Otter Creek sites along the Tongue River. There is no reason, other than industry wishes, to impact the Tongue River Valley with a railroad and the developments that come with coal production. The areas adjacent to Decker and Colstrip have plenty of coal which could provide for increased production while using existing transportation facilities.

Throughout the preliminary studies (which were to be used in writing the Northern Powder River Basin EIS) "lack of sufficient data" is played like a broken record. How can an EIS be drawn up on insufficient information? We wonder how the results of the Billings, Forsyth and Ashland meetings can be

used as meaningful data for the EIS. If to be used the NPRBEIS teams should note that:

1. The BLM meetings seemed designed to prevent comment. We were given only one topic of discussion in the workshops . . . criteria FOR leasing. We had the option of either playing that game or not participating and letting the others present decide how they wanted leasing to proceed. There was no mechanism for recording those persons who felt that the question to be decided was not how to lease but rather if to lease. The only results gathered therefore were suggestions for leasing.

2. The Ashland meeting was likely the most representative of the area people. Why was a meeting held in Billings? Its not even within the EIS study area and a pretty distance from the proposed leasing sites or from those people who will be impacted. Those are the people who need to get to the meetings. Several concerned landowners and citizens didn't even receive the letter (sent by the BLM to area interested citizens) which explained how the meetings were to be conducted and why. We did not receive one.

3. The most important thing to be discussed was the need for more leasing of federal coal. Area residents should have been given information concerning how much coal has already been leased and where.

Sincerely yours,

/s/ Mr. & Mrs. Art Hayes Jr.

cc
NPRBEIS, Helena, MT 59601

You are the decisionmaker considering twenty-three (23) proposed leasing tracts. If you have to select the best tracts, list the two factors that you would consider in deciding which tracts should be mined or not mined.

First off the actual impacts of the mine site itself is more or less insignificant in land area disturbed and basically this land can be reclaimed (definition used fairly loosely).

1. Criteria for consideration should include:

(1) The amount of land affected or disturbed with associated with mining activities--example, how much land would be disturbed by railroad roads housing building--the construction of these facilities on buffer or higher classed lands and their proximity to the perennial streams.

(2) The tracts whose environmental and physiographical criteria will directly affect the physical capabilities of adjacent land-owners ability to continue his operation without impact.

(3) Prioritize according to true energy production capability certain tracts will.

(4) Stagger those nominated tracts in time sequence so the core of workers will be kept working--alleviating boom bust--encourage a new town be developed in a central location then phase the nomination start up dates.

(5) Figure total energy flow pluses and minuses given existing transportation systems.

(6) Strive for logical mining units which will maximize total recovery of the resource available so that remaining of past (future looking back) will not be necessary.

(7) The total number of people (operations) affected immediately by the mining operation--transportation routes included.

(8) The need for this quantity and quality of coal needed by

Unsigned

participants



ASHLAND - AUGUST 9, 1977

Jay Owen, Ashland, Montana
Mr. & Mrs. Harold Sprague, Rt. 1, Forsyth, Montana
Jim & Dorothea Mitchell, T.R. stage Miles City, Montana
Mrs. Arthur Hays, Sr., Birney, Montana
Mrs. Joe Brown, Birney, Montana
Kirk E. Green, Ashland, Montana
Calvin Thex, Ashland, Montana
Steve Elliot, Billings, Montana
Charles Alderman, Broadus, Montana
Earl A. Aye, Broadus, Montana
Ed Heffern, Ashland, Montana
Jennifer Tully, Billings, Montana
Sarah Ignatius, NPRC, Billings, Montana
Dick Monteau, Gen. Del., Lame Deer, Montana
Mr. & Mrs. Gregg Jones, Kirby, Montana
Keith & Doris Stevens, Ashland, Montana
K.P. Stevens, Ashland, Montana
Ed Hanson, Ashland, Montana
Mr. & Mrs. Art Hayes, Jr., R Bar Ranch, Birney, Montana
Mary Daniels, Birney, Montana
Marcus L. Nance, Birney, Montana
Jack Knobloch, Birney, Montana
Marjorie Cutcher, Ashland, Montana

ASHLAND (continued)

Dallas Merchant, Volborg, Montana

Clair Darrah, Ashland, Montana

John Buffalohorn, Lame Deer, Montana

J.D. Ring, Sr., Lame Deer, Montana

Dorel A. Funt, YTAPO, PO Box 503, Broadus, Montana

Clark Judy, PO Box 503, Broadus, Montana

P. Hornnum, Tonger River Rt., Miles City, Montana

Christine Valentine, Birney, Montana

Tim McNary, Natural Res. Ecology Lab., Ft. Collins, Colorado

Ben Hanic, Ashland, Montana

Lloyd Bouslbaugh, Ashland, Montana

Mark & Judy Bloxham, Ashland, Montana

Mr. & Mrs. Burton Brewster, Birney, Montana

George Shy, Ashland, Montana

Ted Fletcher, Ashland, Montana

Margaret E. Bales, Otter, Montana

Walter B. Bales, Otter, Montana

Keith Bales, Otter, Montana

Herb Mobley, Ashland, Montana

Mrs. Herb Mobley, Ashland, Montana

Mr. Jay Nance, Birney, Montana

Brett A. Baechener, PO Box 491, Glendive, Montana

Mr. & Mrs. Ray Gaskill, Ashland, Montana

ASHLAND (continued)

Cheryl Hannum, 1120 N. 29 Street, Billings, Montana
Carolyn Alderson, Birney, Montana
Nancy and Charlie Carson, Birney, Montana
Duane A. Famney, Moab, Utah
Martin Vennes, Ashland, Montana
Wallace D. McRae, Forsyth, Montana
Rev. Ted Kramer, St. Labre Mission, Ashland, Montana
Lilian G. Viall, T.R. Stage, Miles City, Montana
Barbara Archer, Olive, Montana
Walter Archer, Olive, Montana
B.H. Prentiss, Ashland, Montana
Charles F. Conley, Otter, Montana
J.E. Dodds, Ashland, Montana
Don Bailey, Forsyth, Montana
Victor E. Garber, 842 Moon Valley Rd., Billings, Montana
Sr. Anne Walch, St. Labre, Ashland, Montana
Doug McRae, Rt. 1, Forsyth, Montana
Clifford Thex, Ashland, Montana
Louis Capra, Ashland, Montana
Ed Malenovsky, TriCounty Ranchers, Birney, Montana

FORSYTH - AUGUST 11, 1977

Bill Maehl, Consolidation Coal, 3312 4th Avenue, Billings, Montana

Bill Gillin, Rosebud Protective Association

Dave Trimmer, Forsyth Independent

Jenifer Tully, Billings, Montana

Nick Golden, Forsyth, Montana

Janet MacDonald, Rt. 2, Forsyth, Montana

Patty Kluver, Rt. 2, Forsyth, Montana

West Boettger, Western Energy Company, Colstrip, Montana

Paul Gatzemeier, Western Energy Company, Colstrip, Montana

Brett A. Bouclick, PO Box 491, Glendive, Montana

Vern Titlsworth, PO Box 1367, Miles City, Montana

Rex I. Hanson, Box 3, Hathaway, Montana

Red Lovec, Box 388, Sidney, Montana

E.N. Dassinger, Box 753, Forsyth, Montana

D.J. Rose, Box 37, Colstrip, Montana

T.S. Hussion, PO Box 2511, Houston, Texas

BILLINGS - AUGUST 11, 1977

Rex B. Humphrey, Consolidation Coal, 3312 4th Avenue N., Billings, Montana
Mike T. Gustafson, Wesco Resources, Inc., PO Box 1181, Billings, Montana
Peter S. Mattson, PO Box 15479, Salt Lake City, Utah
Warren Wright, Rt. 1, Huntley, Montana
Zada E. Wright, Rt. 1, Huntley, Montana
Maurice Gilbert, 936 N. 30 Street, Billings, Montana
Carroll Laufmann, 1430 Easy Street, Apt #1, Billings, Montana
John K. Beumee, Suite 1820 Lincoln Center, Denver, Colorado
Hal Edwards, Box 30238, Billings, Montana
Paul Hoff, PO Box 79, Sheridan, Wyoming
Ed Howard, PO Box 2512, KULR-TV, Billings, Montana
Eula Hoff, PO Box 79, Sheridan, Wyoming
Hazel Hoff, PO Box 79, Sheridan, Wyoming
C.M. Hauptman, 304 Securities Bldg., Billings, Montana
Sarah Guin, 1302 S. Wester, Stillwater, Oklahoma
Ellen Pfister, PO Box 590, Billings, Montana
Pat Sweeney, 419 Stapleton Building, Billings, Montana
Donald B. Kennedy, Federal Land Bank of Spokane, W. 705 1st Avenue, Spokane, Washington
Grace Edwards, 140 S. Crestwood Drive, Billings, Montana
Harold Silkwood, 1127 Alderson Avenue, Billings, Montana
Jim Holdeman, Northern Coal Company, 222 N. 32nd Street, Billings, Montana
T.J. Hanrahan, 822 N. Kendrick, Glendive, Montana
Tom Ebzery, AMAX Coal Company, 1500 Poly Drive, Suite 165, Billings, Montana

BILLINGS (continued)

Joan Tully, 75 Ranch, Roundup, Montana

Ellen Catlin, Decker, Montana

Bob Tully, Roundup NPRC

Jennifer Tully Billings, Montana NPRC

Charles Yarger, Circle, Montana

Kendrick Harmon, 450 West Works Street, Sheridan, Wyoming

John Kendrick, Kendrick Cattle Company, PO Box 821, Sheridan, Wyoming

Paul Hoff, 3190 So. Monroe Street, Denver, Colorado

Gordon Peake, PO Box 15037, Salt Lake City, Utah

Richard Hothausen, 330 N. Main, Sheridan, Wyoming

Bill Oelklaus, 330 N. Main, Sheridan, Wyoming

Dick Graham, 7013 Ingalls Street, Arvada, Colorado

Chris Carter, AMAX Coal Company, 600 S. Cherry Street #3, Denver, Colorado

F.L. Oliver, Lone Construction Co., Inc., Box 30233, Billings, Montana

Stand True, INTRASEARCH, 1127 Alderson, Billings, Montana

Gardar G. Dahl, Jr., Burlington Northern, 800 First NW Bank, Billings, Montana

Dr. A.F. Hayes, Birney, Montana

J.A. Patten, Billings, Montana

Dan C. Golder, Delphis, Montana

Dan Allowats, Billings, Montana

Mrs. Boyd Charter, Billings, Montana

Al Ireson, Shell Oil Company, 1700 Broadway, Denver, Colorado

Rick Hutchinson, U.S. Geological Survey, 3 N. 7th Street W., Billings, Montana

BILLINGS (continued)

R.C. Rice, Western Energy Company, 113 N. Broadway, Billings, Montana

Sam Matthews, Burlington Northern, 800 First NW Bank, Billings, Montana

Max C. Deibert, Environmental Research & Tech., Granite Tower, Billings, Montana

Kiaimac Donald, American Electric Power, PO Box 700, Lancaster, Ohio

Wayne Parris, Federal Land Bank, Box 30417, Billings, Montana

David R. Gossett, Northern Natural Gas Company, 222 N. 32nd Street, Billings, Montana

BUREAU OF LAND MANAGEMENT

Bob Bennett, Area Manager, Powder River Resource Area, Miles City District Office
Sheryl Davis*, Summer Intern, Montana State Office
Ed Hughes, Minerals Economist, Montana State Office
Paul Myers, Sociologist, Montana State Office
Charles Nelson, Land Use Planner, Montana State Office
George Neuberg, District Manager, Miles City District Office
Hal Pilkington, Public Affairs Specialist, Miles City District Office
Charles Rech, Minerals Economist, Montana State Office
Jeph Shryer, Wildlife Biologist, Lewistown District Office
John Simmons, Geologist, Miles City District Office

FOREST SERVICE

Del Mitchell**, Ranger, Ashland Division, Custer National Forest
"Tex" Williams**, Forester, Ashland Division, Custer National Forest

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